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EXAMINER

ZANELLI, MICHAEL J

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/735,528

Applicant(s)

HILL ET AL.

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-70 is/are pending in the application.
- 4a) Of the above claim(s) 12-21,35-44 and 55-64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11,22-34,45-54 and 65-70 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/12/03; 8/30/04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims 12-21, 35-44 and 55-64 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic claim. Election was made **without** traverse in the reply filed on 10/28/05.
2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
3. The IDS filed 12/12/03 and 8/30/04 have been considered. Note multiple citations of the same document have been lined through.
4. Claims 30-34, 45-54 and 65-70 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - A. As per claim 30, "the second discrete piece of data" and "the first discrete piece of data" lack antecedence.
  - B. As per claim 31, the claim is unclear at e) relative to the "imagery" limitation since it has not been previously established that the recorded data is image data.
  - C. As per claim 51, the claim is unclear at f) relative to the "analyzed imagery data" limitation since it has not been previously established that the collected data is image data.
  - D. All claims depending from an objected base claim are also objected to as containing the same deficiencies.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 7-11, 22, 31-34 and 51-54 are rejected under 35 U.S.C. 102(e) as being anticipated by Silansky et al. (6,811,113).

A. As per claims 1, 31 and 51, Silansky discloses a method and system for capturing and processing physical data of a target object, including providing an airborne vehicle (Fig. 3) which carries a sensor (84) configured to continually record a stream of data (i.e., images) as vehicle moves relative to target object and may include a GPS recorder (col. 7, lines 9-10, 27-32) for recording geo-spatial data related to the image data. The data may be downloaded to a data processing system (Fig. 1) where the received data may be filtered, analyzed, manipulated, etc. (col. 7, lines 50-65; col. 17, lines 14-24). Silansky discloses that the system may be used for a variety of applications including monitoring/observing environmental areas as well as pipelines to detect leaks (col. 6, lines 40-45; col. 8, lines 15-25).

B. As per claims 7-11, 22, 33, 34 and 51-54, as above whereby the airborne vehicle may be equipped with various types of imaging devices appropriate for the target objects being observed (col. 7, lines 5-14) and transmitting the obtained data to remote data processing systems (Fig. 1). The data processing systems may create databases which can be accessed by other remote systems via the Internet.

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 2-6, 23-28, 45-50 and 65-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silansky.

A. Silansky is applied as above whereby the disclosed system may be utilized to observe a variety of target objects such as forests, vegetation, animal movements, natural disaster areas, crude oil pipelines, etc. (see col. 8, lines 15-25). The claimed invention differs only in the type of target areas being observed (i.e., "intended use"). However, one of ordinary skill in the art would have readily recognized from the target area examples disclosed by Silansky that the one could use the system for a wide variety of applications, including those not specifically disclosed. As noted in col. 8, lines 11-13, the airborne vehicle may be outfitted with specific payloads for the type of data to be collected (col. 19, lines 43-46).

9. Claims 1-11, 22-34, 45-54 and 65-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kain et al. (US 5,894,323) or AVCAN Tracker<sup>TM</sup> System-Technical Overview in view of Laumeyer et al. (US 6,266,442).

A. As per claims 1, 7, 22, 29, 30, 31 and 51, Kain discloses a data capture system (Figure 1) mounted on an aircraft (Figure 3) which includes: a sensor (i.e., camera) for generating a stream of data as the aircraft traverses a large object (i.e., terrain), a (differential) GPS recorder for recording geo-spatial data associated with data obtained by the sensor, sensor control system (Figure 4), on-board data processing system and ground-based data processing system. The AVCAN Tracker<sup>TM</sup> System discloses a similar data capture system mounted on a helicopter (see pages 2-3). The claimed invention differs in that the captured data is digitally reduced and associated with the geo-spatial data whereby occurrences of certain data contained therein are identified.

Laumeyer discloses a method of efficiently and accurately analyzing a large amount of recorded data to identify objects contained therein which may be subjected to further processing (col. 1, lines 7-15; col. 2, lines 49-56). The recorded data may be geo-spatially correlated (col. 5, lines 45-54; col. 10, lines 34-39). Laumeyer describes various applications of the disclosed method (col. 4, line 62 to col. 5, line 9). It would have been obvious to incorporate the teachings of Laumeyer into the systems of Kain and AVCAN Tracker<sup>TM</sup> because it would have allowed for more efficient and accurate analysis of the large amount of recorded data.

B. As per claims 2-6, 8-11, 23-28, 32-34, 45-50, 52-54 and 65-70, as above whereby the target object and particular sensor used would have been application specific (i.e.,

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intended use) whereby one of ordinary skill in the art would have found it obvious to utilize the appropriate type of sensor for the given application. See as exemplary the various sensors/applications noted by Kain (col. 7, lines 25-28) and Laumeyer (col. 4, line 62 to col. 5, line 9).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969. The examiner can normally be reached on Monday-Thursday 8:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz

  
MICHAEL J. ZANELLI  
PRIMARY EXAMINER